VII. *Account of an Experiment made with a Thermometer, whoſe Bulb was painted black, and expoſed to the direct Rays of the Sun: In a Letter from* Richard Watſon, *D. D. Regius Profeſſor of Divinity at* Cambridge, *and F. R. S. to* Mathew Maty, *M. D. Sec. R. S.*

Heverſham, September 18, 1772.

DEAR SIR,

Read Dec. 1, 1772. DURING the hot weather, which we had in the latter end of June and the beginning of July laſt, I made an experiment at Cambridge, which I then thought no more of, but which an accident hath brought to my mind again; and I now venture to ſend you an account of it, in hopes that ſome of your philoſophical friends will take the trouble of proſecuting it. I expoſed the bulb of an excellent thermometer to the direct rays of the Sun, when the ſky was perfectly free from clouds: the mercury roſe to 108° of Fahrenheit's ſcale, and continued ſtationary. A fancy ſtruck me, to give the bulb a black covering; this was eaſily effected by a camel's hair pencil and Indian ink; the mercury

mercury ſunk a few degrees during the application of the coating, and the evaporation of the water; but preſently after roſe to 118°, or 10° in conſequence of the black coat with which I had covered that part of the bulb which was expoſed to the Sun. If the bulbs of ſeveral correſponding thermometers were painted of different colours, and expoſed at the ſame time to the Sun, for a given period, ſome conjectures, reſpecting the diſpoſition of the ſeveral primary colours for receiving and retaining heat, might be formed, which could not fail of being, in ſome degree, intereſting.

I am,

DEAR SIR,

Your moſt obedient ſervant,

Richard Watſon.